AMENDMENT UNDER 37 C.F.R. § 1.111 Attorney Docket No.: Q85372

Application No.: 10/523,212

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1. (Currently amended) A porous ceramic heating element wherein 0.08 to 1.00 wt%

of a foaming agent is added in 99.00 to 99.92 wt% of a mixture of an inorganic material, a

binder, a conductive material, a hardener, a bonding agent and a dispersion medium and mixed

with the mixture,

wherein the foaming agent is methyl hydrogen polysiloxane.

2. (Original) The porous ceramic heating element of claim 1 wherein the inorganic

material includes at least one composition selected among steel slag, blast-furnace slag, alumina,

mullite, silicon carbide, titanium carbide, silicon nitride, aluminum nitride, feldspar, zeolite,

kaolin, sericite, talc, mica, illite, pearlite, vermiculite, sepiolite and diatomaceous earth and

forms 40 to 66 wt% of the mixture.

3. (Original) The porous ceramic heating element of claim 1 wherein the binder is

zirconium silicate and forms 2 to 6 wt% of the mixture.

4. (Original) The porous ceramic heating element of claim 1 wherein the conductive

material is graphite and forms 8 to 12 wt% of the mixture.

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5. (Original) The porous ceramic heating element of claim 1 wherein the hardener is

any one of zinc borate, manganese borate and magnesium borate and forms 3 to 33 wt% of the

mixture.

6. (currently amended) The porous ceramic heating element of claim 1, wherein the

bonding agent is <u>an</u> alkali metal silicate and forms 16 to 37 wt% of the mixture.

7. (Original) The porous ceramic heating element of claim 1, wherein the dispersion

medium is water and forms 1 to 8 wt% of the mixture.

8. (Canceled)

9. (Original) The porous ceramic heating element of claim 1, wherein the bonding

agent and the hardener make a condensation polymerization reaction.

10.-12. (Canceled)

13. (New) A porous ceramic heating element wherein 0.08 to 1.00 wt% of a foaming

agent is added in 99.00 to 99.92 wt% of a mixture of an inorganic material, a binder, a

conductive material, a hardener, a bonding agent and a dispersion medium and mixed with the

mixture,

wherein the bonding agent and the hardener make a condensation polymerization

reaction.

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14. (new) The porous ceramic heating element of claim 13, wherein the inorganic

material includes at least one composition selected among steel slag, blast-furnace slag, alumina,

mullite, silicon carbide, titanium carbide, silicon nitride, aluminum nitride, feldspar, zeolite,

kaolin, sericite, talc, mica, illite, pearlite, vermiculite, sepiolite and diatomaceous earth and

forms 40 to 66 wt% of the mixture.

15. (new) The porous ceramic heating element of claim 13, wherein the binder is

zirconium silicate and forms 2 to 6 wt% of the mixture.

16. (new) The porous ceramic heating element of claim 13, wherein the conductive

material is graphite and forms 8 to 12 wt% of the mixture.

17. (new) The porous ceramic heating element of claim 13, wherein the hardener is

any one of zinc borate, manganese borate and magnesium borate and forms 3 to 33 wt% of the

mixture.

18. (new) The porous ceramic heating element of claim 13, wherein the bonding

agent is an alkali metal silicate and forms 16 to 37 wt% of the mixture.

19. (new) The porous ceramic heating element of claim 13, wherein the dispersion

medium is water and forms 1 to 8 wt% of the mixture.

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